

A. CLASSIFICATION OF SUBJECT MATTER

INV. D21H13/40 D06N3/06 D04H13/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

D04H D06N D21H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2006/087426 A (AHLSTROM GLASSFIBRE OY [FI]; AHLSTROEM OY [FI]; SORVARI JUHA [FI]) 24 August 2006 (2006-08-24) paragraph [0001] paragraph [0016] - paragraph [0023]; claims 1-20	1-24
X	WO 02/06605 A (LAFARGE PLATRES [FR]; LECLERCQ CLAUDE [FR]) 24 January 2002 (2002-01-24) page 4, line 16 - page 6, line 18; claims 1-19	1-3, 10-13, 17,21
A	WO 2006/007168 A (OWENS CORNING FIBERGLASS CORP [US]; OWENS CORNING VEIL NETHERLANDS [NL]) 19 January 2006 (2006-01-19) the whole document	1-24

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

10 January 2008

Date of mailing of the international search report

23/01/2008

Name and mailing address of the ISA/

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 497 787 B1 (GEEL PAUL ADRIAAN [NL]) 24 December 2002 (2002-12-24) examples 1-3 -----	1-24
A	US 4 138 521 A (BROWN ROBERT) 6 February 1979 (1979-02-06) abstract; claims 1-12; examples 1-5 -----	1-24

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2006087426	A	24-08-2006	NONE	
WO 0206605	A	24-01-2002	AU 7644101 A	30-01-2002
			BR 0112996 A	01-07-2003
			CA 2418290 A1	24-01-2002
			CN 1443263 A	17-09-2003
			EP 1303672 A1	23-04-2003
			FR 2812012 A1	25-01-2002
			JP 2004504508 T	12-02-2004
			MX PA03000590 A	13-12-2004
			NO 20030857 A	24-02-2003
			PL 360393 A1	06-09-2004
			UA 74840 C2	15-07-2003
			US 2003175478 A1	18-09-2003
			ZA 200300402 A	03-10-2003
WO 2006007168	A	19-01-2006	EP 1776504 A1	25-04-2007
US 6497787	B1	24-12-2002	AT 269918 T	15-07-2004
			AU 6220301 A	30-10-2001
			DE 60103999 D1	29-07-2004
			DE 60103999 T2	21-07-2005
			WO 0179600 A2	25-10-2001
			EP 1276934 A2	22-01-2003
			US 2003000663 A1	02-01-2003
US 4138521	A	06-02-1979	BE 835581 A1	14-05-1976
			CH 609394 A5	28-02-1979
			DE 2551291 A1	20-05-1976
			FR 2291328 A1	11-06-1976
			GB 1532621 A	15-11-1978
			NL 7513369 A	18-05-1976
			SE 7512787 A	17-05-1976
			ZA 7507137 A	24-11-1976

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2007/016026

International filing date (day/month/year)
12.07.2007

Priority date (day/month/year)
27.09.2006

International Patent Classification (IPC) or both national classification and IPC
INV. D21H13/40 D06N3/06 D04H13/00

Applicant
OWENS CORNING INTELLECTUAL CAPITAL, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. II Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43bis.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>5-8, 20</u>
	No: Claims	<u>1-4, 9-19, 21-24</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-24</u>
Industrial applicability (IA)	Yes: Claims	<u>1-24</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Cited documents:

- D1: WO 2006/087426 A (AHLSTROM GLASSFIBRE OY [FI]; AHLSTROEM OY [FI];
SORVARI JUHA [FI]) 24 August 2006 (2006-08-24)
D2: WO 02/06605 A (LAFARGE PLATRES [FR]; LECLERCQ CLAUDE [FR]) 24
January 2002 (2002-01-24)
D3: WO 2006/007168 A (OWENS CORNING FIBERGLASS CORP [US]; OWENS
CORNING VEIL NETHERLANDS [NL]) 19 January 2006 (2006-01-19)

1) Independent Product Claim 1

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses an impregnated fibrous veil ("carrier substrate"; claim 10), comprising:

- (a) a nonwoven fibrous veil including a prebinder and reinforcing fibers consisting of glass fibers (claim 10),
- (b) said nonwoven fibrous veil having at least one face impregnated at a rate of between 90 to 200 g/m² ("pigment coating"; claim 20 as well as p. 7, l. 11-14)
- (c) with a formulation including 80 to 98 weight percent filler and 2 to 20 weight percent binder (claims 11 and 18).

Furthermore, D1 refers optionally to the presence of optical brightener (p. 6, l. 28). It is however noted that an optical brightener is also regarded as optional in the present application, since claim 1 requires that this component be present in the finish formulation between 0 and 1 weight percent.

The same applies to D2 (see the passages highlighted in the ISR) which discloses a fibrous veil including glass fibers and a prebinder (p. 4, l. 16 to p. 5, l. 19), said fibrous

veil being impregnated with a formulation at a rate of 200 g/m² (claims 18 and 14), said formulation comprising 80 to 98 weight percent filler and 2 to 20 weight percent binder (claims 18 and 12).

In view of this, the subject-matter of claim 1 lacks novelty (Art. 33(2) PCT).

2) Independent Method Claim 21

The reasons and conclusion set out above (see "1 Independent Product Claim 1") apply here as well.

In view of this, the subject-matter of claim 21 lacks novelty over D1 and D2 (Art. 33(2) PCT).

Opportunity is further taken to raise an objection under Article 6 PCT. Whilst claim 1 requires a rate of impregnation of 90 to 200 g/m², method claim 21 recites a rate of impregnation of 60 to 200 g/m². It results in an inconsistency between claims 1 and 21 (Art. 6 PCT).

3) Dependent Claims 2-20 and 22-24

Dependent claims 2-20 and 22-24 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

- a) Claim 2: implicitly disclosed in D1 and D2, since inherent to the claimed fibrous veil;
- b) Claim 3: D1 and D2 are totally silent on microspheres used as filler;
- c) Claim 4: conventional in the art for the intended use as cushion vinyl flooring; therefore at least not inventive over D1;
- d) claim 5: see D2 (p. 4/5) and D3 (claim 6);
- e) Claims 6-9: see D3 (claims 7-10);
- f) Claim 10: See D1 (paragraph 23) and D3 (claim 11);
- g) Claims 11-13: see D1 (paragraph 20) and D3 (claims 12-14);

- h) Claims 14-19: see D3 (claims 15-17);
- i) Claim 20: conventional in the art;
- j) Claims 22-24: see D3 (claims 21-23)

4) Industrial Applicability

The industrial applicability would appear to be evident (Art. 33(4) PCT).

5) Miscellaneous

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D3 is not mentioned in the description, nor are these documents identified therein.